

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P231038

Luminaire Tested: **ARCH-M-AF48-60-D-U-T2R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231038
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-60-D-U-T2R
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 405mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8981.5 lumens
Efficiency: N/A
Efficacy: 142.6 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 63
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

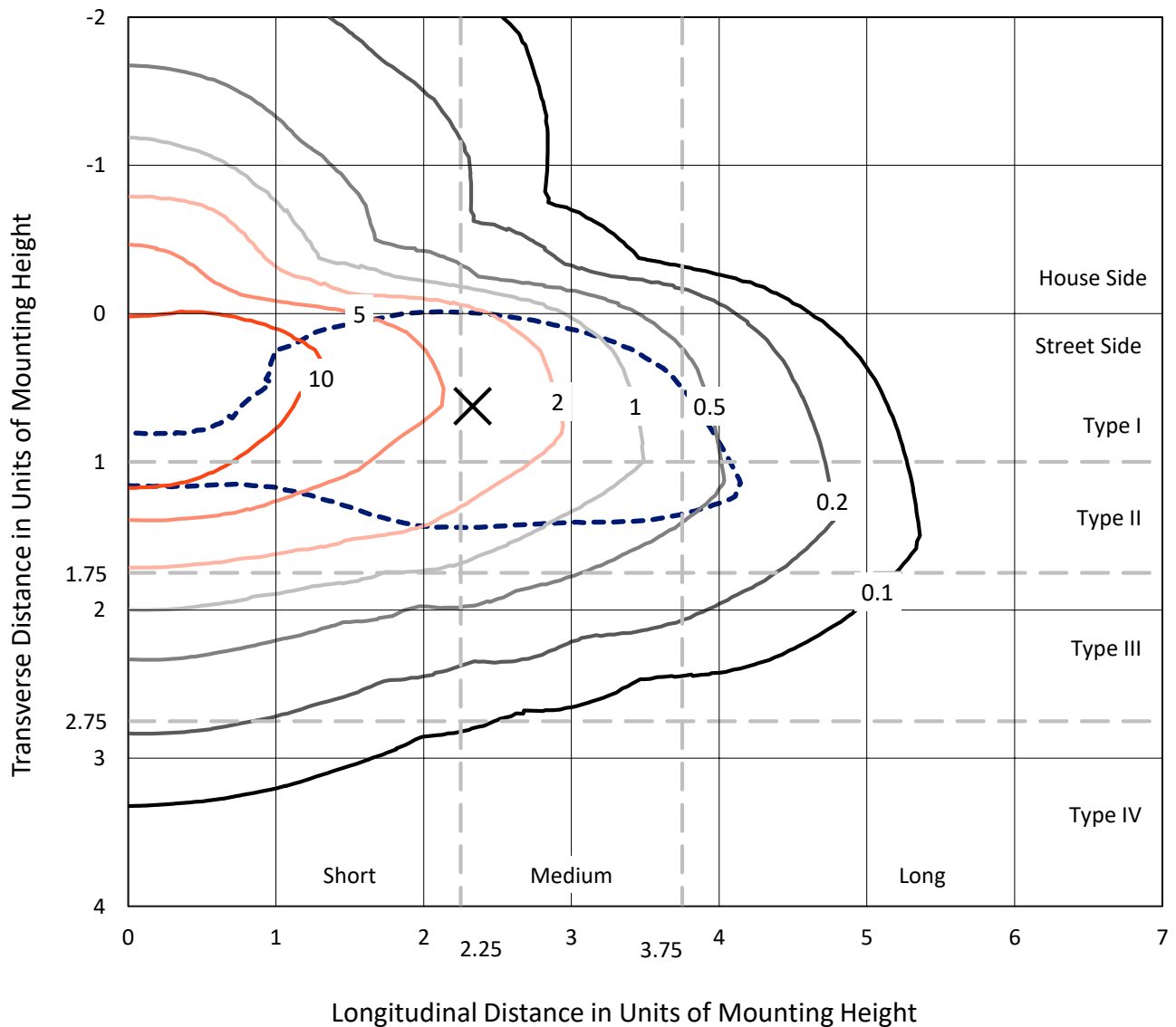


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

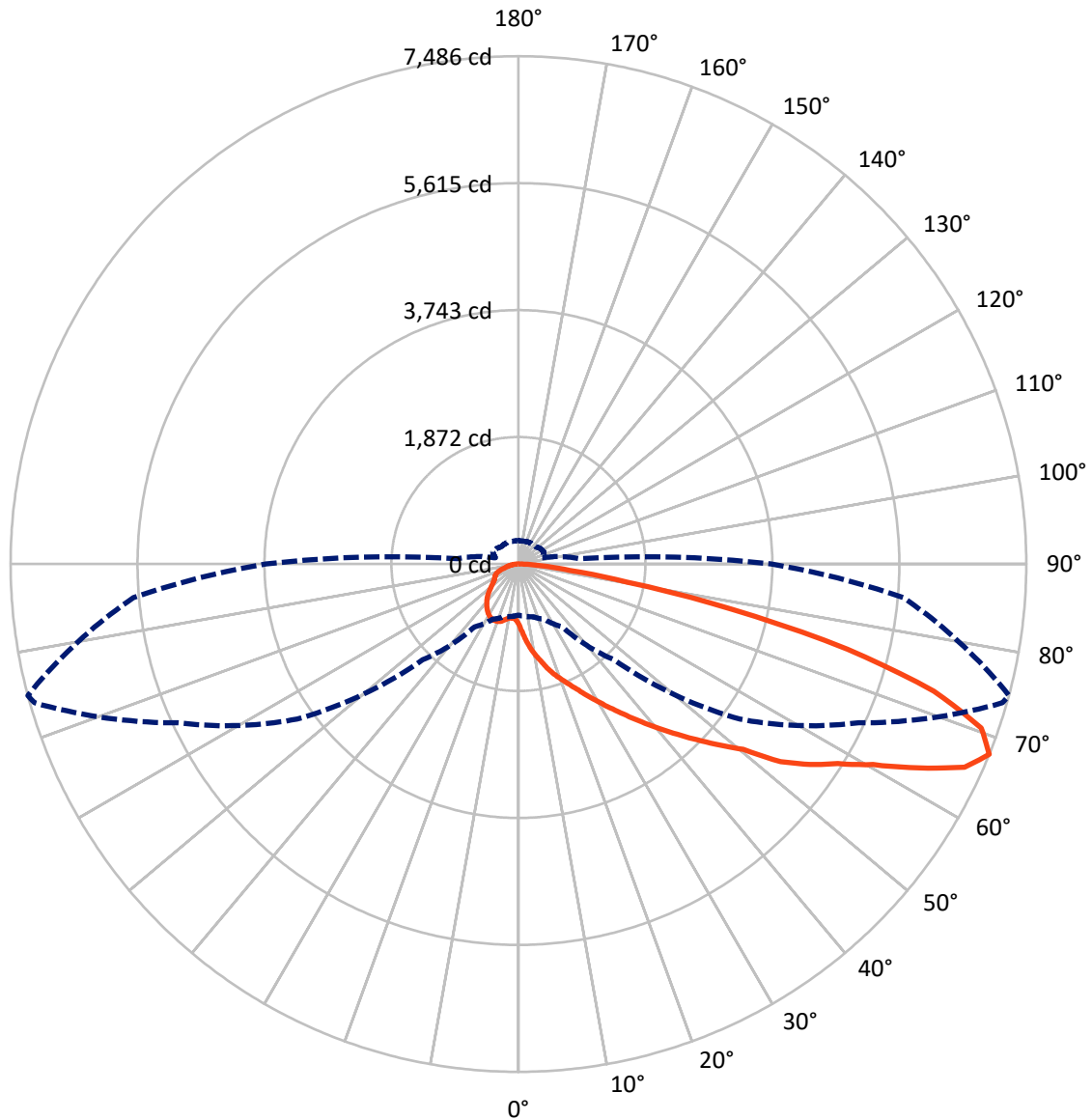


Based on 10 foot mounting height. Maximum calculated value = 18.6 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1533.7	0.0	1533.7
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	7447.8	0.0	7447.8
	% Fixture	82.9	0.0	82.9
Total	Lumens	8981.5	0.0	8981.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.6	1.2
10°-20°	377.8	4.2
20°-30°	689.2	7.7
30°-40°	1131.2	12.6
40°-50°	1635.9	18.2
50°-60°	1927.9	21.5
60°-70°	1873.4	20.9
70°-80°	1041.4	11.6
80°-90°	200.2	2.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	8981.5	100.0
0°-180°	8981.5	100.0

Coefficient of Utilization



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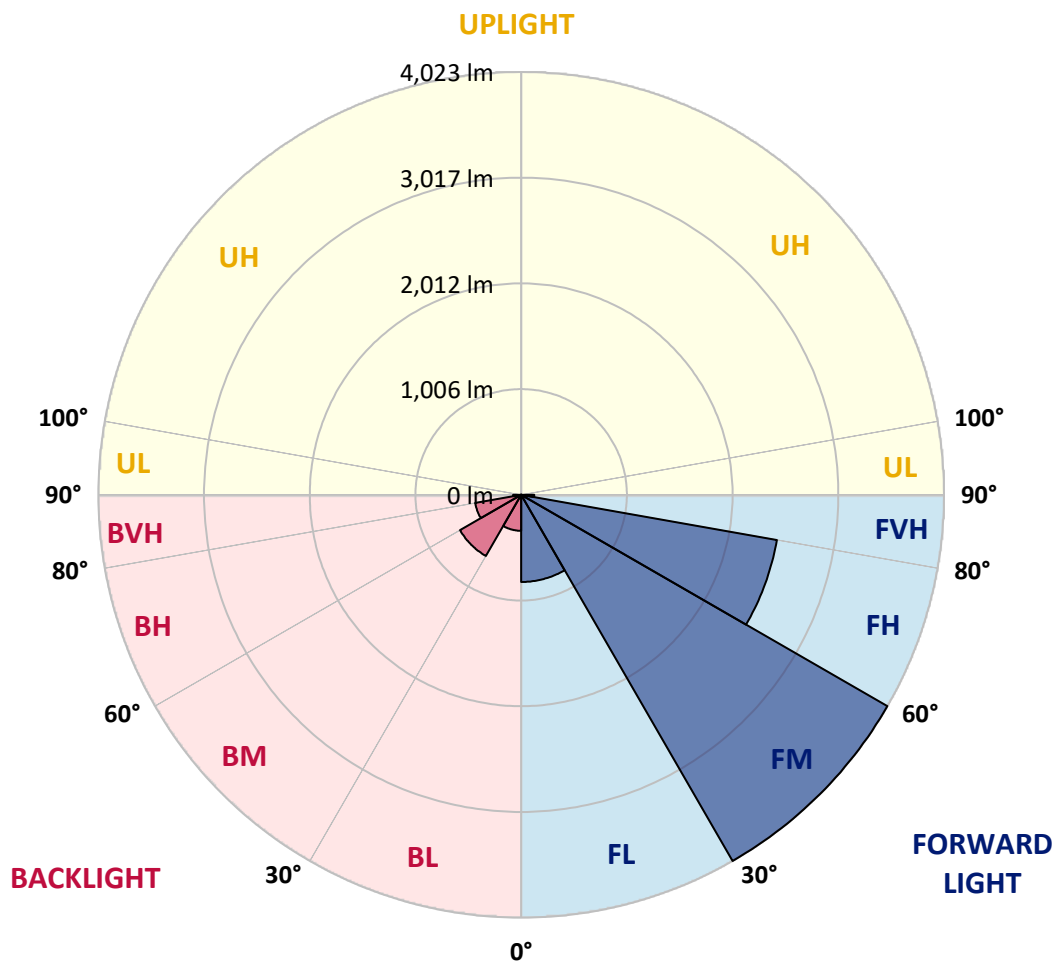
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	829.2	9.2			
FM (30°-60°)	4023.2	44.8			
FH (60°-80°)	2470.7	27.5			G2/5000
FVH (80°-90°)	124.6	1.4			G2/225
BL (0°-30°)	342.3	3.8	B1/500		
BM (30°-60°)	671.7	7.5	B1/1000		
BH (60°-80°)	444.1	4.9	B1/500		G1/500
BVH (80°-90°)	75.6	0.8			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0
2.5°	1261.7	1265.5	1258.0	1241.0	1216.7	1171.6	1132.2	1062.7	1000.8	993.3	927.5
5°	1483.3	1487.1	1477.7	1457.0	1430.7	1381.9	1327.5	1237.4	1137.8	1119.0	980.1
7.5°	1635.4	1637.2	1626.0	1605.3	1584.7	1535.9	1481.4	1380.1	1258.0	1243.0	1047.7
10°	1764.9	1768.7	1753.6	1740.6	1718.0	1669.1	1612.9	1505.8	1380.1	1359.4	1117.2
12.5°	1885.1	1888.9	1879.5	1868.2	1860.6	1815.6	1753.6	1626.0	1490.8	1468.2	1199.8
15°	1965.8	1969.6	1971.4	1986.5	1995.9	1964.0	1902.0	1763.1	1610.9	1590.3	1297.4
17.5°	1943.3	1952.7	1980.8	2035.3	2093.5	2095.4	2044.7	1898.3	1729.3	1706.7	1396.9
20°	1877.6	1885.1	1918.9	2001.5	2116.1	2181.7	2178.0	2035.3	1840.1	1815.6	1488.9
22.5°	1932.0	1941.5	1941.5	1992.1	2104.8	2226.9	2275.7	2170.5	1950.9	1928.3	1581.0
25°	2164.9	2170.5	2131.1	2110.4	2151.7	2264.4	2356.4	2317.0	2086.0	2059.7	1680.4
27.5°	2489.7	2480.3	2431.5	2348.9	2303.8	2333.9	2427.8	2455.9	2241.8	2209.9	1783.7
30°	2812.6	2807.0	2750.7	2639.9	2538.6	2474.6	2506.6	2579.8	2410.8	2373.2	1883.3
32.5°	3114.9	3105.6	3043.6	2914.0	2799.5	2681.2	2619.3	2692.5	2591.0	2547.9	1994.0
35°	3392.8	3368.4	3306.5	3171.2	3053.0	2940.3	2788.3	2799.5	2786.3	2741.3	2116.1
37.5°	3618.1	3599.4	3531.7	3405.9	3280.2	3173.1	3013.5	2921.5	2996.6	2953.5	2256.8
40°	3817.1	3796.5	3727.0	3601.2	3484.8	3383.4	3257.6	3069.9	3233.2	3184.4	2414.6
42.5°	3967.3	3952.4	3896.0	3772.1	3659.4	3567.4	3505.4	3257.6	3479.2	3432.2	2587.3
45°	4048.1	4033.1	4003.0	3903.5	3800.3	3728.9	3734.5	3481.1	3736.4	3696.9	2791.9
47.5°	3948.6	3959.8	3986.1	3967.3	3903.5	3869.7	3939.2	3712.0	4023.7	3986.1	3013.5
50°	3682.0	3693.3	3798.4	3927.9	3950.4	3991.8	4123.2	3978.7	4327.9	4297.8	3287.7
52.5°	3026.7	3088.6	3379.6	3689.5	3901.6	4072.5	4327.9	4374.8	4840.4	4840.4	3772.1
55°	2286.9	2341.3	2673.7	3214.4	3712.0	4080.0	4478.1	4643.3	5210.3	5217.9	4025.5
57.5°	1853.2	1886.9	2050.3	2604.2	3314.0	3986.1	4656.5	4874.3	5518.2	5552.1	4352.2
60°	1503.9	1522.8	1629.8	2014.7	2763.8	3732.6	4784.1	5204.7	5957.6	6004.5	4769.1
62.5°	1209.1	1228.0	1299.2	1530.2	2168.7	3257.6	4761.5	5548.3	6543.4	6620.4	5315.5
65°	965.1	985.7	1032.7	1175.4	1607.3	2668.1	4530.6	5724.7	7149.9	7225.0	5677.9
67.5°	752.9	771.7	803.6	897.5	1132.2	1995.9	3984.3	5538.9	7422.1	7486.0	5696.6
70°	568.9	578.3	604.6	664.7	809.3	1325.5	3118.7	4915.6	7178.0	7236.3	5321.1
72.5°	441.2	439.4	454.4	484.5	565.2	912.5	2067.3	3997.4	6346.3	6406.3	4540.1
75°	360.5	358.6	368.1	377.4	409.3	612.1	1220.5	3009.8	5122.1	5007.5	3405.9
77.5°	304.1	302.3	311.7	313.5	326.7	422.5	694.7	1980.8	3417.3	3220.0	1918.9
80°	257.3	255.3	266.6	270.4	279.8	309.9	400.0	1072.2	1716.1	1626.0	916.3
82.5°	193.4	200.9	221.6	231.0	242.2	229.0	247.9	473.1	796.1	760.5	398.0
85°	93.9	110.8	167.2	185.9	199.1	144.5	169.0	223.4	358.6	341.8	161.5
87.5°	31.9	28.1	99.5	118.3	129.5	65.7	93.9	123.9	148.3	135.2	50.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0	890.0
2.5°	899.4	871.2	829.9	798.0	777.3	760.5	752.9	751.1	747.3	745.4	745.4
5°	918.1	867.5	803.6	769.8	760.5	752.9	756.7	758.5	758.5	758.5	758.5
7.5°	946.3	874.9	798.0	775.4	773.6	773.6	784.8	790.4	794.2	794.2	794.2
10°	983.9	888.1	807.4	788.6	794.2	798.0	811.1	818.7	822.4	824.3	826.1
12.5°	1034.5	916.3	826.1	811.1	818.7	820.5	829.9	833.6	837.4	839.3	839.3
15°	1102.1	957.6	856.2	837.4	839.3	837.4	837.4	833.6	831.8	831.8	835.5
17.5°	1171.6	997.0	882.5	856.2	848.6	833.6	822.4	813.0	807.4	803.6	805.5
20°	1241.0	1032.7	897.5	859.9	839.3	814.9	794.2	781.1	773.6	766.1	769.8
22.5°	1310.6	1066.4	903.2	848.6	818.7	783.0	760.5	739.8	722.9	711.6	713.5
25°	1387.5	1104.1	903.2	835.5	790.4	752.9	724.8	691.0	666.6	657.1	660.9
27.5°	1464.6	1136.0	893.8	811.1	758.5	721.0	679.6	640.3	625.2	619.6	621.4
30°	1541.5	1160.3	873.1	781.1	724.8	683.4	629.0	602.7	583.9	568.9	570.8
32.5°	1618.5	1177.2	845.0	743.5	689.1	636.5	591.5	561.4	527.6	508.8	510.7
35°	1706.7	1190.4	811.1	705.9	649.7	595.2	561.4	512.6	476.9	461.9	458.2
37.5°	1798.8	1199.8	775.4	664.7	610.2	565.2	531.3	471.3	437.5	416.9	414.9
40°	1898.3	1203.5	732.2	621.4	572.6	546.4	491.9	446.8	388.6	375.5	375.5
42.5°	2016.5	1201.7	689.1	578.3	531.3	503.2	463.8	443.1	392.4	379.3	371.7
45°	2151.7	1201.7	642.1	527.6	490.1	448.8	431.9	418.7	384.9	390.6	394.2
47.5°	2305.7	1197.9	585.8	486.3	456.2	420.5	411.2	383.0	369.9	373.7	377.4
50°	2517.9	1203.5	535.1	452.5	431.9	401.8	390.6	375.5	369.9	371.7	369.9
52.5°	2812.6	1184.8	486.3	431.9	413.1	373.7	373.7	371.7	373.7	371.7	371.7
55°	2974.1	1143.5	450.6	420.5	400.0	360.5	368.1	371.7	375.5	373.7	373.7
57.5°	3203.2	1115.3	422.5	413.1	392.4	356.7	364.3	371.7	373.7	371.7	371.7
60°	3473.5	1096.5	403.7	414.9	386.8	356.7	366.1	371.7	369.9	368.1	368.1
62.5°	3787.1	1089.0	390.6	420.5	381.2	358.6	366.1	371.7	364.3	362.3	362.3
65°	3905.4	1021.4	373.7	424.3	384.9	358.6	364.3	366.1	356.7	354.9	353.0
67.5°	3723.2	905.0	349.2	416.9	396.2	358.6	358.6	356.7	345.5	343.6	339.8
70°	3315.8	751.1	311.7	392.4	403.7	360.5	351.1	341.8	330.4	330.4	322.9
72.5°	2715.0	591.5	262.9	349.2	398.0	366.1	336.0	322.9	309.9	309.9	302.3
75°	1956.5	441.2	210.3	291.0	373.7	364.3	317.3	300.4	285.4	283.6	274.2
77.5°	1115.3	309.9	170.8	227.2	332.4	354.9	300.4	274.2	257.3	251.6	245.9
80°	572.6	208.4	138.9	178.4	276.0	328.6	287.2	244.1	225.4	215.9	206.5
82.5°	272.2	138.9	107.0	131.4	208.4	287.2	270.4	210.3	189.7	178.4	167.2
85°	122.0	82.7	71.3	84.5	148.3	223.4	238.4	172.8	148.3	185.9	137.1
87.5°	39.4	37.5	37.5	39.4	71.3	97.6	174.6	127.7	118.3	97.6	82.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)